

## Claims

1. A biomolecule microarray support for spotting solutions containing probe biomolecules on the surface and immobilizing  
5 the probe biomolecules in the solutions to the surface, characterized in that

a plurality of small-sized probe biomolecule-attachable spots are arrayed in a regular arrangement on the surface of the support.

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2. The biomolecule microarray support of claim 1, wherein said probe biomolecule-attachable spots have a layer of any one of biomolecule-immobilizing agents including avidin, streptavidin, biotin, amino group, carbonyl group, hydroxyl group,  
15 succinimide group, maleimide group, and thiol group.

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3. The biomolecule microarray support of claim 1 or 2, wherein said support is a glass plate, silicon plate, plastic plate, gold or gold-coated plate, or silver or silver-coated plate.

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4. The biomolecule microarray support of any one of claims 1 to 3, wherein said probe biomolecule-attachable spots have avidin molecules bound in a single layer to the ends of the biotin molecules bound to the surface of the support.

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5. A biomolecule microarray characterized in that probe biomolecules are bound to said probe biomolecule-attachable spots of the support of any one of claims 1 to 4.

5 6. The biomolecule microarray of claim 5, wherein said probe biomolecules are DNA, RNA, PNA, or protein.

7. The biomolecule microarray of claim 5 or 6, wherein said probe biomolecules are biotin-labeled biomolecules and are  
10 bound to said probe biomolecule-attachable spots by biotin-  
avidin binding.

8. A method of fabricating the biomolecule microarray support of any one of claims 1 to 4, comprising steps by which said  
15 probe biomolecule-attachable spots are formed only on the specific areas of the surface of a support by the photolithography and etching technique.